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Washington State University (stationed at USDA-ARS-HCRU worksite)
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EDUCATION:

Doctor of Philosophy (Food Science and Technology), The Ohio State University, Columbus, OH – Aug 2009.

Master of Science (Agricultural and Biological Engineering), Pennsylvania State University, University Park, PA – Aug 2005.

Bachelor of Technology (Food Process Engineering), Tamil Nadu Agricultural University, Coimbatore, India – Jul 2002.

PROFESSIONAL EXPERIENCE:

- **Post-Doctoral Research Associate**, Washington State University, Parma, ID, Oct 2009 – Present.
- **Scientific Support Intern**, Nestlé Product Technology Center, Marysville, OH, Jan 2009 – Jun 2009.
- **Graduate Research Associate**, The Ohio State University, Columbus, OH, Jun 2005 – Dec 2008.
- **Graduate Research Assistant**, Pennsylvania State University, University Park, PA, Aug 2003 – May 2005.
- **Research and Development Executive**, Modern Food Industries (Subsidiary of Unilever), Chennai, India, Jan 2003 – Jul 2003.

TEACHING EXPERIENCE:

- **Teaching Assistant**, FST 605 Advanced Food Chemistry, The Ohio State University.
- **Teaching Assistant**, FST 401 Introduction to Food Processing, The Ohio State University.
- **Snack Food Association Workshop**, The Ohio State University.

GRANT WRITING EXPERIENCE:

1. Investigation of Biochemical Changes in Cheddar Cheese during Ripening using Fourier Transform Infrared Spectroscopy – Ohio Agricultural Research and Development Center.
2. Novel Approach for Evaluating Mechanisms of Spore Inactivation/Germination by ATR-IR Spectroscopy - Center for Advanced Processing and Packaging Studies.
3. Application of Infrared Spectroscopy for Predicting Maturation of Cheese – Commercial Cheese Manufacturer.

POSITIONS HELD:

- Information Systems Director, Institute of Food Technologists Student Association (IFTSA), 2007-2008.
- Student Representative to Electronic Communications Committee, Institute of Food Technologists (IFT), 2007-2008.
- OSU College Bowl Team 2006-2008 – National Champions 2008, IFT Annual Meeting, New Orleans, LA.
- OSU Product Development Team 2006-2008 – Finalist at IFTSA Product Development Competition at IFT Annual Meeting 2006, Orlando, FL.
- Member, Graduate and Professional Students Committee, Ohio Union Activities Board (OUAB), The Ohio State University, 2005-2006.
- Member, University Park Allocation Committee, Pennsylvania State University, University Park, PA: 2003-2005.

AWARDS AND HONORS:

1. Institute of Food Technologists (IFT) Graduate Fellowship 2008-2009.
2. V. Duane Rath Graduate Research Fellowship 2008, Food Processing Suppliers Association (FPSA).
3. Presidential Fellowship 2008, The Ohio State University.
4. 1st place winner (2007) and 2nd place winner (2009), Institute of Food Technologists (IFT) Dairy Foods Division Manfred Kroger Oral Competition.
5. 2nd place winner, American Dairy Science Association (ADSA) Dairy Food Division Oral Competition 2007.
6. 2nd place winner, Institute of Thermal Processing Specialists Graduate Paper Competition 2007.

PATENT:

1. **Subramanian, A.S.**, and Rodriguez-Saona, L.E., inventors. 2008. Rapid Extraction Method for Analysis of Cheese Flavor Using Infrared Spectroscopy. The Ohio State University, assignee. Provisional Appln. Ser. No. 61/059,890.

PEER-REVIEWED PUBLICATIONS:

1. **Subramanian, A.S.**, Harper, J.W., and Rodriguez-Saona, L.E. 2009. Cheddar Cheese Classification Based on Flavor Quality Using a Novel Extraction Method and Fourier Transform Infrared Spectroscopy. *Journal of Food Science*. 74(3):C292-297.
2. **Subramanian, A.S.**, Harper, J.W., and Rodriguez-Saona, L.E. 2009. Cheddar Cheese Classification Based on Flavor Quality Using a Novel Extraction Method and Fourier Transform Infrared Spectroscopy. *Journal of Dairy Science*. 92:87-94.
3. **Subramanian, A.S.**, Ahn, J., Balasubramaniam, V.M., and Rodriguez-Saona, L.E. 2007. Monitoring Biochemical Changes in Bacterial Spores during Thermal and Pressure-Assisted Thermal Processing by FT-IR Spectroscopy. *Journal of Agricultural and Food Chemistry*. 55(22):9311-9317.

4. **Subramanian, A.S.**, Ahn, J., Balasubramaniam, V.M., and Rodriguez-Saona, L.E. 2006. Determination of Spore Inactivation during Thermal and Pressure-Assisted Thermal Processing using FT-IR Spectroscopy. *Journal of Agricultural and Food Chemistry*. 54(26):10300-10306.
5. **Subramanian, A.S.**, and Irudayaraj, J. 2006. Surface Plasmon Resonance Based Immunosensing of *E. coli* O157:H7 in Apple Juice. *Transactions of the ASABE*. 49(4):1257-1262.
6. **Subramanian, A.S.**, Irudayaraj, J., and Ryan, T., 2006. Mono and Dithiol Surfaces on Surface Plasmon Resonance Biosensors for Detection of *Staphylococcus aureus*. *Sensors and Actuators B*. 114(1):192-198.
7. **Subramanian, A.S.**, Irudayaraj, J., and Ryan, T. 2006. A self-assembled monolayer based surface plasmon immunosensor for detection of *E. coli* O157:H7. *Biosensors and Bioelectronics*. 21(7):998-1006.

BOOK CHAPTERS:

1. **Subramanian, A.S.**, and Rodriguez-Saona, L.E. 2008. Fourier Transform Infrared (FT-IR) Spectroscopy. In: *Infrared Spectroscopy for Food Quality Analysis and Control*. Edited by: Sun D. Elsevier. Oxford, UK. p145-178.
2. **Subramanian, A.S.**, and Irudayaraj, J. 2007. Biosensors for pathogen detection. In: *Encyclopedia of Food Agricultural and Biological Engineering*. Ed. Heldman, D.R. Taylor & Francis. New York. p1-4.

FORTHCOMING PEER-REVIEWED PUBLICATIONS:

1. **Subramanian, A.S.**, and Rodriguez-Saona, L.E. 2009. Chemical Approaches to the Assessment of Cheese Quality. In: *Advances in Food & Nutrition Research*, 56. Ed. Taylor, S. Academic Press, New York. In Review.
2. **Subramanian, A.S.**, Harper, J.W., and Rodriguez-Saona, L.E. 2009. Cheddar Cheese Analysis Using FTIR Spectroscopy: 1 Determination of Amino Acids and Organic Acids in Water-Soluble Extracts. *International Dairy Journal*. In Review.
3. **Subramanian, A.S.**, Shiroma, C., Mannig, A., Grasso, E., and Rodriguez-Saona, L.E. 2009. Rapid Determination of Oil Quality Attributes Using Fourier Transform Spectroscopy. *Journal of Food Composition and Analysis*. In Review.
4. **Subramanian, A.**, Harper, J.W., and Rodriguez-Saona, L.E. 2009. Cheddar Cheese Analysis Using FTIR Spectroscopy: 2 Investigation of Biochemical Changes during Ripening. *International Dairy Journal*. In Review.
5. Prabhakar, V., Ratphitagsanti, W., **Subramanian, A.S.**, Balasubramaniam, V.M., and Rodriguez-Saona, L.E. 2009. Quantification of DPA Release during High Pressure and High Pressure-Temperature Treatment of *Bacillus amyloliquefaciens* Grown on Two Different Media Using Fourier-Transform Infrared Microspectroscopy. *Journal of Food Protection*. In Preparation.
6. **Subramanian, A.S.**, and Rodriguez-Saona, L.E. 2009. Applications of Infrared Spectroscopy in Dairy Foods. In: *Encyclopedia of Dairy Sciences*. Ed. Roginski, H., Fuquay, J., Fox, P. Elsevier, Oxford, UK. In Preparation.